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OFFICE OF THE SECRETARY

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November 9, 2000

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Magalie Roman Salas, Secretary Office of the Secretary Federal Communications Commission 445 - 12th Street, SW Washington, DC 20554

Attn: Patrick Forster, Senior Engineer

Room 3-A104 **Policy Division**

Wireless Telecommunications Bureau

Re: Minnesota Southern Wireless Company and

> Minnesota Southern Cellular Telephone Company, Implementation Plan of Wireless E-911 Phase II

Automatic Location Identification

Notice Pertaining to CC Docket No. 94-102

Dear Ms. Salas:

On behalf of Minnesota Southern Wireless Company and Minnesota Southern Cellular Telephone Company, we are transmitting herewith their joint Report on Implementation of Wireless E-911 Phase II Automatic Location Identification.

Please refer any inquiries or correspondence in connection with this matter to our offices.

Robert M. Jackson

Attachment

cc(w/att): Ernie Lombard Mark Dundas

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MINNESOTA SOUTHERN WIRELESS COMPANY ORIGINAL

MINNESOTA SOUTHERN CELLULAR TELEPHONE COMPANY 1640 Madison Avenue Mankato, Minnesota 56001 RECEIVED

NOV 9 2000

Magalie Roman Salas, Secretary Office of the Secretary 445 - 12th Street, S.W. Washington, D.C. 20554

HEDERAL COMMUNICATIONS COMMUNICATIONS

Attention: Patrick Forster, Senior Engineer

Room 3-A104 Policy Division

Wireless Telecommunications Bureau

Re: Implementation Plan of Wireless E-911 Phase II

Automatic Location Identification

Notice Pertaining to CC Docket No. 94-102

E-911 PHASE II STATUS REPORT

Dear Ms. Salas:

In accordance with the <u>Third Report and Order</u> in CC Docket No. 94-102 and the Commission's related <u>Public Notice</u>, Mimeo DA 00-2099, released September 14, 2000, we hereby submit our report on the status of implementation plans for Wireless E-911 Phase II Automatic Location Information ("ALI"), as follows:

Background/Contact Information

1) Carrier Identifying Information:

Minnesota Southern Wireless Company

Minnesota Southern Cellular Telephone Company

TRS Number: 815582

2) Contact Information: Mark Dundas, Network & Switch

Engineering Manager

Hickory Tech Corporation

1640 Madison Avenue

Mankato, Minnesota 56001

Tel: 507-340-0006

FAX: 507-625-1073

E-Mail: mark.dundas@hickorytech.com

and

Robert M. Jackson Blooston, Mordkofsky, Jackson & Dickens 2120 L Street, N.W., Suite 300 Washington, D.C. 20037

Tel: 202-828-5515 FAX: 202-828-5568 E-Mail: rmj@bmjd.com

E-911 Phase II Location Technology Information

1) Type of Technology: We have contacted our switch vendor, NorTel, and the anticipated providers of ALI equipment for networkbased solutions (Allen Telecom/Grayson, TruePosition, and U.S. Wireless Corp.), as well as the anticipated providers of ALI equipment for handset-based solutions (Nokia and Ericsson) addition, we have reviewed the report from the Rural Cellular Association and have discussed this matter with other providers of wireless services. As was the case with the other wireless carriers contacted by us, we have experienced difficulties in receiving replies from the anticipated vendors of ALI equipment, and even greater difficulty receiving pricing information from those vendors. Most of the responses received by us from the vendors were extremely vague, and, in fact, raised more questions than they answered. The equipment is still in the research and development stage, and, as a result, none of the equipment is ready for commercial deployment.

However, based upon the information presently in our possession, it is apparent to us that a network-based solution would not be economically feasible for a rural carrier such as ourselves because the ALI equipment required for installation at the switch and at the various cell sites would be prohibitively expensive. In addition, since some of our cellular base station locations are very isolated, equipment would have to be installed outside of our Cellular Geographic Service Areas.

With respect to a handset-based solution, the prospective vendors of handset-based ALI equipment would not give us a date by which their equipment would be available for commercial deployment, nor were they able to provide us with a firm price for the cost of the equipment, installation and testing. Our switch manufacturer, NorTel, will not be able to interface with the handsets until their MTX10 switch load. We have been advised by NorTel that this load will not be available until December 2001. In addition, NorTel has advised us that even with this load, there may be limitations to its functionality. NorTel did not have pricing information available for their portion of a handset-based solution.

Based upon the currently available information, we believe

that a hybrid system would be the most effective ALI solution available to us, but it appears that this solution may be prohibitively expensive. If forced to select the technology today, we would select a handset-based solution. The final selection will be based upon a combination of pricing and receipt of an acceptable equipment delivery date, once the equipment is ready for commercial deployment.

2) Testing and Verification: Since there is very little information available from the vendors, it is difficult to devise a testing methodology. We would anticipate regular testing of random locations throughout our service area, beginning in areas where the PSAP has requested Phase II deployment.

However, notwithstanding the foregoing, the following testing and verification methodology looks promising: Each individual cell site sector will have test calls placed on it utilizing various models of portable and 3 watt subscriber units. These tests will be performed using both AMPS and TDMA handsets. The geographic location of the subscriber unit can be verified by using a separate, handheld GPS receiver and comparing the coordinates against the coordinates identified using the ALI equipment's location determination subroutine.

- 3) <u>Implementation Details and Schedule</u>: We plan to adhere to the implementation schedule established by the Commission in the Fourth Memorandum Opinion and Order, released September 8, 2000. However, our ability to do so will depend, in large measure, on the ability of equipment manufacturers to have their products operational and delivered in a timely manner. No equipment vendor has been able to commit to a delivery schedule. It is anticipated that the equipment installation will be performed by the equipment vendor under a "turn-key" contract.
- 4) <u>PSAP Interface</u>: NorTel has not yet provided any information as to how their system will interface with the PSAP. However, based upon currently available information from other sources, we anticipate using the services of GTE/TSI. A data link will be established from our signal control point to the ALI database serving the local PSAPs, and between the signal control point and a local server collecting the results of the location query. The voice portion will be forwarded to the selective router. The location will be sent to the ALI database along with the number of the party initiating the E-911 call, and will be transmitted to the PSAP using an appropriate data link.
- 5) Existing Handsets: We will continue to keep abreast of our current handset suppliers' ALI deployment plans. Our subscribers will be informed beginning sometime in 2001, by way of bill inserts, of the coming availability of ALI-capable handsets and given the opportunity to acquire them, when available. Subscribers will also be informed of the December 31, 2005 date by which

basically all or substantially all handsets must be ALI-capable.

6) <u>Location of Non-Compatible Handsets</u>: We will provide, at a minimum, Phase I ALI information for handsets that are incompatible with the Phase II technology.

Beginning with the October 1, 2001 date for starting to sell and activate ALI-capable handsets, we will tout their advantages to new subscribers and recommend that non-compatible handsets be restricted for use at campus locations. We will use a "best practices" solution in connection with providing ALI to non-compatible handsets, assuming, of course, that the PSAP is equipped to utilize Phase II data. It appears that such solutions are currently in development and, at this stage, we are not committed to any particular solution.

7) Other Information: Although we have informed the PSAPs of the E-911 capability of our switch, we have yet to receive a request for Phase I ALI, and we have received no requests for Phase II. We have heard of no plans for PSAPS in our service area to request Phase II.

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Respectfully submitted,

Minnesota Southern Wireless Company and Minnesota Southern Cellular Telephone Company

Dated: 11/08/00